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Healthcare professionals' opinions regarding health coaching for patients with diabetes: A pilot exploration in Indonesia

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Abstract

Background: Diabetes management is applied for the entire patients' lives, so it requires lifelong sustainable self-management actions to have a positive impact. Integrated care as coaching intervention is considered a program that facilitates and supports patients in managing diabetes more effectively and optimally. However, there are limited studies regarding this program in Indonesia.

Objective: This study aimed to explore the opinions of healthcare professionals concerning the importance of health coaching for patients with diabetes in Indonesia.

Methods: An invitation letter via email was distributed individually to participants from the three provinces of Java, Indonesia, between June and August 2020. The open-ended questions that consist of two sections were developed to explore the matter related to health coaching for patients with diabetes. A descriptive analysis of the participants' answers was used to explain the data comprehensively and accurately reveal the complete information.

Results: A total of seven healthcare professionals from four professions participated in the study. Based on healthcare professionals' opinions, this study revealed that the most common reason health coaching needs to be implemented is related to self-management in dealing with diabetes. Health coaching as a tailored-intervention strategy in diabetes self-management requires a multidisciplinary approach and considers the local wisdom to achieve the expected goals in all aspects of patients' lives. Thus, health coaching as an integral part of diabetes self-management is considered an appropriate program to cope with this problem.

Conclusion: Health coaching for patients with diabetes is useful and reasonable to implement among patients with appropriate strategies, especially in Indonesia and beyond.

Keywords

diabetes; health coaching; healthcare professional; self-management; nursing; Indonesia

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Background

Individual diabetes management, or called self-care or self-management, is a program that handles and manages diabetes to be carried out by patients independently with the aim of preventing or reducing complications and improving the quality of life. In Indonesia, diabetes management is known for its five pillars, including education, nutrition management, physical activity, medication management, and glycemic control ([Indonesian Endocrinology Association, 2015](#)).

Diabetes management is applied to the entire life of patients, so it requires lifelong sustainable self-management actions to be successful and give a better result in life. Indeed, a previous publication revealed that self-management behaviors that can be influenced by support from either family

members or health workers are strongly associated with HbA1c ([Thojumpa & Acob, 2020](#)). These supports are involved in maintaining a healthy lifestyle and optimizing diabetes management.

A study looked into patients with diabetes who did not comply with strategic management summarized in the five pillars of diabetes management ([Wong-Rieger & Rieger, 2013](#)). Unfortunately, patients are less likely to follow and adhere to the recommendations given, thus resulting in uncontrolled diabetes. Moreover, patients need long-term support to self-manage their health conditions, but limited healthcare services are available. Therefore, such a program that facilitates this activity is needed as a solution.

Globally, supporting activities that help patients change their health behaviors are often known as health coaching. This is a kind of integrated care intervention implemented in

healthcare services. Health coaching is a process that focuses on involving individual patients to identify and achieve health goals through education and individual support (Kivelä et al., 2014; Palmer et al., 2003). It also helps patients increase their awareness to optimize individual potency regarding their health status.

One study has shown that health coaching can significantly improve the self-management behaviors of patients with chronic diseases (Kivelä et al., 2014). Therefore, health coaching is considered a program that facilitates and provides support to patients in managing diabetes more effectively and optimally. However, other studies have stated that patient participation in health coaching activities is influenced by barriers of communication, knowledge, and beliefs (Burton & Thompson, 2018; Thom et al., 2015).

Health coaching is an individually tailored intervention that needs to be applied to manage patients' symptoms and complaints (Hermens et al., 2014; Héroux et al., 2017; Vanacker et al., 2017). Patients with diabetes need to work together with a healthcare team that compiles a treatment plan in a healthcare facility. However, there are limited studies regarding health coaching in Indonesia. The latest quasi-experimental study revealed that patients with type 2 diabetes have an improvement in metabolic markers and implement self-management in daily life when they follow the self-management-based coaching program (Pamungkas & Chamroonsawasdi, 2020). Assisting the patients to deal with the problem is necessary for an appropriate strategy to apply for this program.

Nowadays, the implementation of health coaching in Indonesia has not been sufficiently developed. There is no standardized regulation published by the government regarding health coaching implementation. The specific programs that are applied are reported to be less effective in reducing the glycated hemoglobin levels of diabetes patients (Rosdiana et al., 2017). Moreover, several studies have shown various problems regarding dietary adherence, physical activity, and control of blood glucose in diabetic patients (Chairani & Dk, 2018; Gajati & Kusumaningrum, 2020; Rachmawati & Kusumaningrum, 2017). These problems occur not only in Indonesia but also worldwide (Crichton et al., 2013; Iversen et al., 2015; Knight et al., 2016; Ram et al., 2014). However, Indonesia's various ethnicities, cultures, beliefs, and socioeconomic levels may influence the implementation of the program in the country. Therefore, this study aimed to describe the importance of health coaching for patients with diabetes based on the opinions of healthcare professionals in Indonesia.

Methods

Study Design

This was a pilot exploration study focusing on identifying healthcare professionals' opinions on the importance of health coaching in diabetes management. In addition, an instant study protocol was conducted to a small-scale version of the complete survey was tested, from patient recruitment to data analysis.

Participants

A purposive sampling strategy was piloted to recruit participants. The sample size in this study was set at 3–80 participants as a recommendation from three professions (Grisham, 2009; Mullen, 2003). The characteristics of participants were determined on the basis of some considerations, including profession type, work duration with diabetes, and institution-based occupation.

To recruit healthcare professionals, including doctors, nurses, nutritionists, psychologists, and pharmacists who are interested in diabetes care, the diabetes educator association has been contacted as the responsible working group. However, because of difficulties in recruiting, each probable participant was contacted individually. As a result, the researchers agreed to enroll seven healthcare professionals from different professions. This study involved participants from the three provinces of Java, Indonesia, including East Java, Central Java, and DI Yogyakarta.

Data Collection

An invitation letter via email was distributed to participants individually between June and August 2020. The letter informed about the study and assured that all data would be kept confidential. After approving the written informed consent by signing the online consent form, participants directly answered all questions provided in google form links, consisting of open-ended questions exploring their opinion.

The open-ended questions were developed to guide the exploration of issues related to health coaching for patients with diabetes. It was divided into two sections pertaining to 1) participants' professional profiles and 2) healthcare professionals' opinions regarding health coaching for patients with diabetes. Indeed, researchers focused on ensuring that the interview questions were constructed to answer the research question. Each researcher reviewed the questions relating its language, wording, and relevance. The questions required self-completion by participants and verified whether it was comprehensible and appropriate to address the research question. The key points of healthcare professionals' opinions related to health coaching questions are described in [Table 1](#).

Table 1 Key point of questions to explore the opinions

Questions
Why does health coaching for patients with diabetes need to be implemented?
What kind of action need to be undertaken in health coaching for patients with diabetes?
Who is involved in health coaching for patients with diabetes?
When and where is the health coaching for patients with diabetes applied?
How to proceed with the health coaching for patients with diabetes?

All comments were taken into consideration, then texting or messaging was performed to clarify participants' answers when needed. Errors were modified to get a clear understanding, as well as no further changes were considered necessary.

Data Analysis

All data were collected in excel form based on the answers entered in the google form. The analysis was mainly

descriptive, with data about the profession, duration of work with diabetes, and institution-based occupation, that analyzed for the frequency distribution, mean, minimum, and maximum values. In addition, a descriptive analysis of the participants' answers based on questions was used to provide a comprehensive explanation of the data and accurately reveal the complete information. The process involved the authors reading the answered contents, classifying data, examining the collected data, doing a detailed analysis of each answer, and combining all contexts comprehensively.

Trustworthiness/ Rigor

The rigor and trustworthiness in qualitative research could be conducted by triangulation, member checking, detailed transcription, and systematic plan and coding (Gunawan, 2015). In order to provide trustworthiness in this study, peer checking by an experienced colleague to re-analyze some of the data was performed. The peer reviewer involved in this study was a certified nurse who has the content expertise related to coaching and patient-centered care. He voluntarily acted as a reviewer of the project that critically evaluated the results.

Ethical Considerations

This was a part of the bigger study regarding the analysis and application of comprehensive diabetes health coaching in healthcare facilities that have been reviewed by The Ethics Committee of Health Research, Department of Nursing, Faculty of Medicine, Diponegoro University (Number: 107/EC/KEPK/D.Kep/VI/2020). Written online informed consent was also obtained from each participant who was willing to participate in this study.

Results

Characteristics of the Participants

A total of seven healthcare professionals from four professions in the health area willingly participated in this study. Details of the healthcare professionals who participated in this study are provided in Table 2. The professionals included a nurse, nutritionist, psychologist, and pharmacist whose work is related to diabetes for an average of 16.57 ± 10.91 years. In addition, more than half of the participants have been working in a university or education field (57.14%).

Table 2 Profile of the participants ($n = 7$)

Characteristics	Frequency	Percentage
Profession		
Nurse	2	28.57
Nutritionist	2	28.57
Psychologist	2	28.57
Pharmacist	1	14.29
Duration of work with diabetes		
(mean \pm SD, years)	16.57 ± 10.91	
Min	7	
Max	35	
Institution-based occupation		
Education	4	57.14
Hospital	2	28.57
Primary care	1	14.29

Healthcare Professionals' Opinions

Five themes based on the open-ended questions were established to decode the healthcare professionals' opinions. These themes included the reasons for health coaching for patients with diabetes, activities in health coaching for patients with diabetes, the person involved in health coaching for patients with diabetes, when and where is the health coaching for patients with diabetes applied, and the way to proceed health coaching for patients with diabetes.

The reasons for health coaching for patients with diabetes

The perception of the importance of health coaching for patients with diabetes varies among professionals. They are perceived as important to very important. Here, most healthcare professionals revealed that self-management to dealing with diabetes is the main reason this program is considered very important. A dietician stated:

The health coaching program is very important. Patients should know and understand their disease so that they can manage their condition. I think this is why the program should be implemented. (Dietician 2)

Furthermore, most healthcare professionals also described that health coaching for patients with diabetes should be applied nationally. They mentioned why health coaching should collaborate with other organizations that focus on diabetes. A nurse mentioned:

This program is expected may be easier to implement if it becomes part of national diabetes management policy, which is to guide and direct diabetes management application by healthcare professionals. Diabetes educator organization or committee needs to synergy in applying for this program and guarantee its continuity. (Nurse 1)

Despite most of the positive reactions toward health coaching programs, for some reason, a healthcare professional disagreed that health coaching needs to be integrated into another program nationally.

Actually, there was a national program that was implemented by the Diabetes educator organization or committee. ... this health coaching is much better implemented using its own design and characteristic. (Nurse 2)

The importance and reason of this program were clearly stated by all participants. They were excited that health coaching could be applied simultaneously. Moreover, these health professionals emphasized that the program should be called for.

I think the program is very good. However, what this program is called should be negotiated. (Psychologist 2)

Activities in health coaching for patients with diabetes

Healthcare professionals mentioned that diabetes management, including all aspects related to a healthy lifestyle such as diet, physical activity, medication, blood glucose control, and stress, was the most common problem of patients with diabetes. They also described the need to prevent further complications of diabetes and provide support, which finally will make a better change in health behaviors.

All of the health coaching activities aim to increase the knowledge and skills of patients with diabetes based on personalized learning. Those were planned as tailored-intervention for each patient involved in the action plan. ... including lifestyle improvement, stress management, blood glucose self-monitoring, blood glucose management, and medicine management. Indeed, one of the major aims of this program is improving self-management. (Pharmacist)

Healthcare professionals recommended that the application of health coaching for diabetes patients must be well prepared. Overall, it should involve thorough considerations regarding the necessary steps, including identifying the habits of the local community, which also involves local leaders, and determining the habits of the person to find limitations in providing education.

Dietary arrangements can be adjusted to the tastes of the local culture with food ingredients that are easily found daily at household amounts. (Nurse 1)

There needs to be a food guide for people with diabetes according to the culture or conditions of each area. ...coaching can access difficulties or obstacles in medication and find solutions to the difficulty. (Pharmacist)

Psycho-education needs to be given to patients and their families on the risk of complications if blood sugar conditions are not controlled. Discuss with the patient the best and most comfortable coping program that can be done. ... health coaching focuses on the strong why and willingness of patients that engage them to solve the problem come up in diabetes management. (Psychologist 2)

The person involved in health coaching for patients with diabetes

All healthcare professionals stated the people who are involved in health coaching for patients with diabetes, including all healthcare providers. It was pointed out that doctors, nurses, nutritionists, pharmacists, psychologists, physiotherapists, and social workers, certified in health coaching and have mastered the principles of behavior change may be involved in this program.

All healthcare professionals, who are trained in health coaching, should be involved in giving the optimal facility. (Psychologist 1)

For sure, to be more effective, each healthcare professional should be master in behavior change principles. (Nurse 2)

Additionally, many healthcare professionals mentioned that patients with diabetes who are well-educated and successful in dealing with their condition also need to be involved in health coaching for patients with diabetes as the role model. They suggested that participation can motivate patients to cope with their situation.

Health coaching should be provided by all health care workers in health care services, for example, doctor, nurse, dietician, physiotherapists, pharmacists, and social workers. ... well-educated patients with diabetes also need to involve as a peer group. (Dietician 1)

Time and place of health coaching for patients with diabetes applied

All healthcare professionals reported that health coaching for patients with diabetes should be applied as soon as patients are diagnosed with diabetes. It is also stated that it can be applied earlier when they are diagnosed with pre-diabetes.

The appropriate health coaching for patients should be done when patients are diagnosed with pre-diabetes and confirmed as diabetes. ... as soon as they are diagnosed, health coaching should be applied. (Dietician 1)

To apply health coaching for patients with diabetes, healthcare professionals suggested doing that program at a representative location, in either healthcare services or community settings. Many professionals recommended the program to take place at hospitals, clinics, or public health centers. Importantly, it should occur in a privacy-guaranteed place.

Health coaching should be applied at the representative place, which is comfortable and conducive to discussion, for instance, at patients' homes. (Pharmacist)

In my opinion, health coaching can be done at the hospital, public health center, clinic, or even at home. (Dietician 2)

The way to proceed with health coaching for patients with diabetes

Multidisciplinary approach

Healthcare professionals agreed that health coaching for patients with diabetes is a multidisciplinary intervention. They reported that health coaching is a program that involves various healthcare professionals to achieve the expected targets.

Health coaching is an integrative program. It is proved that multidisciplinary collaboration gives a positive consequence to the patients' goals. (Nurse 1)

All healthcare professionals also need to coordinate and collaborate in this program. Each healthcare professional, as a member of the team, play a role based on their competency and capacity. (Nurse 2)

Intervention strategies

Health coaching can be done individually or in groups at several sessions according to the patients' needs and based on the local and cultural conditions. The periodical meeting will improve the consistency to achieve the target.

Health coaching is appropriate to be implemented individually, one on one, using active listening and motivational interviewing approach. It can be planned periodically, for example, once a month, regularly, and gradually. (Nurse 2)

The individual approach and the small group that consists of 4 – 10 members are suitable to apply the intervention and interact with the patient intensively. (Dietician 1)

... for the adequacy of time, consider the response of the patient. Ideally, a maximum of 1 hour per meeting is sufficient because sometimes, when the concentration-time increases, the patient's attention decreases. (Psychologist 2)

Considering the geographic contour of Indonesia, especially Java, it should be noted that the location where the health coaching is located is important. Various methods, either offline or online, also recommended preventing bored situations between the coach and patients. A face-to-face meeting, phone monitoring, social media, and picnic can be done to modify the process. Many of them also recommended that health coaching can occur in patients' homes or at

community meetings, a traditional convention in Java that is called “sarasehan.”

I, personally, prefer offline meetings than online. A face-to-face meeting is more effective in evaluating patients' achievements. The health coaching can be held when “sarasehan” in a community meeting. (Dietician 1)

Meeting between the coach and patients can be facilitated by directly meeting or social media. The online method can be done by WhatsApp group or Facebook. ... coach and patients can arrange a picnic as their support to daily patient activities. (Dietician 2)

By phone monitoring is one of the effective ways to intervene and evaluate what kind of activities patients do to manage their condition. (Pharmacist)

The specific topic can be shared online using zoom meeting, Google meeting, or online seminar. (Psychologist 2)

Discussion

The most common reason health coaching needs to be implemented is related to self-management in dealing with diabetes. The implementation of diabetes self-management needs to be carried out throughout the lives of patients with diabetes, so it requires lifelong sustainable self-management actions to have a positive impact. A previous quasi-experimental trial study in Taiwan concluded that health coaching might be an effective strategy to enhance self-management for diabetes patients (Chen et al., 2019). Furthermore, a case presentation also demonstrated that health coaching was successfully applied in alleviating diabetes distress and improving diabetes self-management (Chima et al., 2021). Thus, health coaching as an integral part of lifestyle treatment that benefits to facilitate behavior changes is perceived as an effective health program. Unfortunately, to the best of our knowledge, very limited health coaching information is available in Indonesia.

The implementation of health coaching in diabetes can be done in promotion, preventive, curative, and rehabilitative settings. The promotion and prevention settings are carried out in groups at risk of diabetes, including pre-diabetes people. The purpose is to control the risk factors of individuals, including maintaining a healthy diet, performing adequate physical activities, and performing routine health checks at healthcare services so they will not cause a diabetes incident. Furthermore, the curative and rehabilitation settings are applied to individuals who experience diabetes by managing this disease, including healthy behavioral changes, medication compliance, and blood glucose level control to prevent complications. In terms of health coaching's effect on diabetes control and lifestyle improvement, a randomized controlled trial proved that health coaching may be beneficial to the blood sugar control and healthy diet of patients with type 2 diabetes (Lin et al., 2021).

This study described health coaching as a diabetes management approach involving physical, psychological, emotional, and psychosocial support to prevent complications and improve patients' quality of life. A systematic review and meta-analysis on the effectiveness of health coaching on diabetic patients revealed that mixed results were reported for

the effect of health coaching on quality of life, self-efficacy, self-care skills, and depressive symptoms outcome (Radwan, 2019). It has a significant impact on HbA1c and HDL-C. A further explanation in a pragmatic cluster randomized controlled trial on the effect of a health coach intervention for management of individuals with type 2 diabetes mellitus in China described that both groups displayed a statistically and clinically significant within-group improvement of the same magnitude at 18-months for HbA1c, although it may need to further a rigorous research (Chapman et al., 2018).

Supporting self-management in treating diabetes can be performed by healthcare professionals, family members, friends, and peers that aim to maintain a healthy lifestyle and optimize diabetes management of people with diabetes, which results in increasing the quality of life (Dejonghe et al., 2017). Therefore, people with diabetes need to work with healthcare professionals who have developed a treatment plan for diabetes in health service facilities as part of diabetes health coaching. A previous study stated that coaches in diabetes health coaching should have 23 years of experience handling diabetes mellitus (Bennett et al., 2010). Unfortunately, to our knowledge, there are no health coaching-related programs and training in Indonesia. Also, the development of standards and credentials of professional health coaches has not been arranged yet.

Previous studies stated that health coaching involves all professions of health services, such as doctors, nurses, nutritionists, pharmacists, psychologists, and other healthcare professionals (Jeon & Benavente, 2016; Kohn, 2014; Lenzen et al., 2018). Others studies emphasize collaboration among healthcare professionals in supporting and assisting the patients in coping with their conditions using active listening and motivational interviewing approaches (Linden et al., 2010; Song et al., 2014; Thom et al., 2015). Additionally, healthcare providers collaborate with diabetes patients to develop goals or expectations desired by people with their illnesses, identify their potential that can be developed, make choices, and arrange activity plans to achieve predetermined goals (Johnson et al., 2018).

A study of diabetes patients in Turkey and Denmark concluded that there is a need for health coaching for the management of type 2 diabetes that focuses on multi-disciplinary approaches, including oral health (Cinar et al., 2018). Despite the positive opinion of health coaching, several barriers to its implementation in Indonesia were evident in this study. The government has not implemented a policy regarding standardized health coaching; thus, the application of health coaching is still unclear.

There are various conditions and circumstances that need to be considered in the implementation of this program. Besides, recommendations related to health coaching also vary among studies. The previous study developed a 12-week participatory learning program that consisted of three sessions to increase the patients' understanding of diabetes care (Pamungkas & Chamroonsawasdi, 2020). Moreover, another study recommended that the intervention period ranged from 12 to 48 weeks, and the follow-up period duration was mainly 24 weeks (Dejonghe et al., 2017). However, one study conducted an 18-month health coaching intervention to their participants using motivational interviewing and usual care (Chapman et al., 2018). Based on these explanations,

determining the appropriate time should be considered, especially for a population in a developing country, like Indonesia.

Health coaching focuses on not only medical management but also social management. It involves lifestyle changes and emotional control. The success of achieving goals is determined by all aspects of the patients' lives according to their needs and plans, including bodyweight control, physical activity balancing, dietary fulfillment, and support system maintenance.

In this study, the opinions of healthcare providers describe what happens in the many different perspectives of professions. A behavioral change is the expected outcome after health coaching is implemented. However, their orientation of health coaching implementation mostly still emphasizes the knowledge. Health coaching for patients with diabetes includes not only responding to patients seeking diabetes information but also taking up the challenge of how to self-manage diabetes. This study is consistent with a previous study that stated that health coaching is distinct from health education in terms of the question types (Wolever et al., 2011). Indeed, the questions of health coaching would focus on the client's agenda, whereas health education is more likely to focus on the disease management process.

Health coaching not only educates people in managing their diabetes but also provides a proper solution based on patients' ability and willingness. Education-based programs need to be complemented by self-management support, or called coaching, to change patients' health behaviors (Wong-Rieger & Rieger, 2013). The health coaching process is not given as a lecture but as a part of a dialog between the coach and patients. The principle of non-directive interaction is used as an ideal strategy to facilitate and encourage patients to make an autonomous decision about their health status. Furthermore, various methods and techniques, either by individuals or groups, are recommended to prevent bored situations between the coach and patients. The application of this program is structured individually, tailored according to the complaints, problems, and conditions experienced by the patients.

Implications of the study

Health coaching is a patient-centered process based on behavioral change theory and is delivered by health professionals with multidisciplinary backgrounds (Wolever et al., 2013). Health coaching for patients with diabetes is a health development program as a collaboration between healthcare providers and people with diabetes to control and manage their signs and symptoms. It focuses on facilitating the patients regarding the knowledge, abilities, and skills needed to manage diabetes (Lenzen et al., 2018). Here, the process entails goal setting as determined by patients and a patient-decided approach to disease management (Chen et al., 2019; Wolever et al., 2013).

Collaboration among healthcare professionals can be started by determining the roles and responsibilities of each health profession as a form of involvement in the program implementation and providing technical instructions so that all-important aspects can be planned comprehensively. The previous study demonstrated that nurse-led multidisciplinary team management is an effective intervention for improving

glycemic control, QOL, hospitalization, and help-seeking behavior for people with DM in a community (Ni et al., 2019). In terms of this program, each health worker can conduct health coaching sessions according to a schedule compiled with the patient in accordance with the guidelines that have been mutually agreed upon between all health workers. In addition, a structured and comprehensive patient monitoring program can be created so that health workers can help monitor target achievements and allow technical program adjustments for patients. Finally, using these steps, the healthcare professional team could identify problems for each patient.

Health coaching, as a collaborative approach between healthcare professionals and patients with diabetes, has been implemented to control diabetes and its complications, including the signs and symptoms (Bennett et al., 2010; Howard & Ceci, 2013). Healthcare professionals have five principle roles in conducting health coaching activities in people with diabetes, including (1) providing self-management support, (2) bridging the gap between health workers and people with diabetes, (3) helping direct the health service system, (4) providing emotional support, and (5) establishing sustainable relationships. In addition, each coach is responsible for a certain area, based on their competency.

Limitations and recommendations for future studies

This study has two limitations. To begin with, the standard operating procedure and policy of health coaching have not been appropriately established in Indonesia, although many healthcare professionals claimed that they have already applied for this program. It would be interesting to investigate the perception of patients about this program. Furthermore, the use of purposive sampling may not represent all healthcare professionals in Indonesia. A future study would be enhanced by incorporating a rigorous mixed-method and investigating it further using an adequate theory.

Conclusion

This current study describes healthcare professionals' opinions regarding the importance of health coaching for patients with diabetes. It was clearly stated that health coaching for patients with diabetes is valuable and reasonable to implement with some strategies in Java, Indonesia. Further studies should examine patients' opinions on how health coaching can improve their quality of life.

Declaration of Conflicting Interest

The authors declare that there is no conflict of interest in this study.

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Authors' Contributions

NSDK initiated the concept, writing, and drafting of the data. FYA and DN provided important intellectual content and contributed feedback while writing a manuscript draft. All authors have provided final approval and agreement for all aspects of the work regarding content.

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Data Availability

Due to privacy and ethical concerns, neither the data nor the source of the data can be made available.

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